

THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY AND EXHIBITS

OF

MICHAEL L. SEAMAN-HUYNH

MARCH 12, 2008



DOCKET NO. 2008-2-E

**South Carolina Electric & Gas Company
Annual Review of Base Rates for Fuel Costs**

DIRECT TESTIMONY OF
MICHAEL L. SEAMAN-HUYNH
ON BEHALF OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
DOCKET NO. 2008-2-E
IN RE: ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS
OF SOUTH CAROLINA ELECTRIC & GAS COMPANY

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Michael Seaman-Huynh. My business address is 1441 Main Street, Suite 300, Columbia, South Carolina 29201. I am employed by the State of South Carolina as an Electric Utilities Specialist in the Electric Department for the Office of Regulatory Staff (“ORS”).

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received a Bachelor of Arts Degree in History from the University of South Carolina in Columbia in 1997. Prior to my employment with ORS, I was employed as an energy analyst with a private consulting firm. In June 2006, I joined ORS.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to set forth ORS’s findings and recommendations resulting from its examination of the South Carolina Electric & Gas Company’s (“SCE&G” or “Company”) fuel expenses and power plant operations used in the generation of electricity to meet the Company’s retail customer requirements.

1 **Q. WHAT AREAS WERE ENCOMPASSED IN YOUR REVIEW OF THE**
2 **COMPANY'S FUEL EXPENSES AND PLANT OPERATIONS?**

3 **A.** In preparation for this proceeding, ORS reviewed, among other materials and documents,
4 the Company's monthly fuel reports including power plant performance data, unit
5 outages, and generation statistics. Comparisons and analysis of actual to original
6 estimates were performed for both megawatt-hour sales and fuel costs.

7 **Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF THE**
8 **COMPANY'S PROPOSAL IN THIS PROCEEDING?**

9 **A.** ORS met with various SCE&G personnel representing a variety of areas of expertise to
10 discuss and review the Company's fossil and nuclear fuel procurement; fuel
11 transportation; environmental cost procedures; nuclear, fossil and hydro generation
12 performance; plant dispatch; forecasting; resource planning; and general Company
13 policies and procedures. These meetings occurred at SCE&G Headquarters in Columbia,
14 S.C. Additionally, ORS keeps abreast of the coal and natural gas industries including
15 transportation through industry publications on a daily basis.

16 **Q. WHAT DID ORS DETERMINE FROM ITS EXAMINATION OF THE**
17 **COMPANY'S PLANT PERFORMANCE FOR THE REVIEW PERIOD?**

18 **A.** ORS reviewed the performance of the Company's generating facilities to determine if the
19 Company made reasonable efforts to minimize fuel costs. The review period includes the
20 historical period from February 2007 through January 2008, and the projected period
21 from February 2008 through April 2009. ORS reviewed the availability of the
22 Company's major power plants. Exhibit MSH-1 shows the monthly availability of the
23 Company's major generating units stated in percentages. The corresponding capacity

1 factors in Exhibit MSH-2 indicate the monthly utilization of each unit in producing
2 power.

3 **Q. PLEASE EXPLAIN THE SIGNIFICANCE OF PLANT AVAILABILITY AND**
4 **HOW IT IS USED IN ORS'S EVALUATION OF THE COMPANY'S PLANT**
5 **PERFORMANCE.**

6 **A.** Exhibits MSH-3 and MSH-4 show the Company's major fossil and nuclear units
7 summary of outages for the review period, respectively. With reference to Exhibit MSH-
8 1, in months where generation units show zero availability as well as those months
9 showing less than 100% availability led us to examine the reasons for such occurrences.
10 Exhibit MSH-1 through Exhibit MSH-4 were used to evaluate the Company's plant
11 operations. As an example, Exhibit MSH-1 shows that Wateree Unit 1 had 0.00%
12 availability in April 2007. Exhibit MSH-3 indicates the reason for the 0.00% availability
13 as being the scheduled maintenance outage between March 16, 2007 and May 20, 2007;
14 therefore, the unit was not available to generate electricity during this time frame due to
15 planned maintenance being performed.

16 **Q. PLEASE EXPLAIN HOW THE OTHER OUTAGES ARE REPRESENTED ON**
17 **EXHIBITS MSH-3 AND MSH-4?**

18 **A.** Exhibit MSH-3 provides explanations for major fossil unit outages of 100 hours or
19 greater although our review includes all outages. Exhibit MSH-4 provides explanations
20 for all nuclear plant outages during the review period.

21 **Q. PLEASE ADDRESS THE OUTAGES AT THE VC SUMMER NUCLEAR**
22 **STATION.**

1 **A.** Exhibit MSH-4 shows two forced outages during the review period. ORS reviewed these
2 outages including associated Nuclear Regulatory Commission (“NRC”) documents, and
3 determined that the Company responded appropriately during both outages. In addition,
4 ORS reviewed the instances where reductions of reactor power occurred due to
5 maintenance and found these to be reasonable. Despite the two outages during the
6 review period, the VC Summer nuclear station operated efficiently with an availability
7 factor of 97.5% and a capacity factor above 98%. The VC Summer nuclear unit was last
8 refueled between October 14, 2006 and November 22, 2006. VC Summer is on an
9 approximate 18 month refueling cycle, and is scheduled to begin its next refueling outage
10 in April 2008.

11 **Q. WHAT WERE THE RESULTS OF ORS’S ANALYSIS OF THE COMPANY’S**
12 **PLANT OPERATIONS FOR THE PERIOD UNDER REVIEW?**

13 **A.** ORS’s review of the Company’s operation of its generating facilities concluded that the
14 Company made reasonable efforts to maximize unit availability.

15 **Q. WHAT WERE THE RESULTS OF ORS’S REVIEW OF THE GENERATION**
16 **MIX AND BASELOAD UNIT FUEL COSTS UTILIZED BY THE COMPANY**
17 **DURING THE REVIEW PERIOD?**

18 **A.** Exhibit MSH-5 shows the monthly generation mix for the review period by generation
19 type. As shown in this Exhibit, the higher fuel cost combined-cycle natural gas-fired
20 plants, which include both Jasper and Urquhart, generally contributed higher percentage
21 generation during the both summer and winter peak months and lower percentage
22 generation during the non-peak periods.

1 In addition, Exhibit MSH-6 shows the average fuel costs for the major generating plants
2 on the Company's system for the review period and the megawatt-hours produced by
3 those respective plants. VC Summer generation represents SCE&G's 2/3 ownership
4 percentage in the plant. The chart shows the lowest average fuel costs as being with VC
5 Summer Nuclear Station being 0.43 cents/kWh and the highest average fuel costs as
6 being with the Jasper and Urquhart natural-gas fired combined cycle plants being 6.52
7 and 6.97 cents/kWh, respectively. The Company utilizes economic dispatch which
8 generally requires that the lower cost units are dispatched first.

9 **Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S FORECAST**
10 **FOR THE REVIEW PERIOD?**

11 **A.** Yes. As shown in Exhibit MSH-7, the Company's actual megawatt-hour sales versus
12 forecasted sales varied by only 0.08% during the review period. In addition, Exhibit
13 MSH-8 shows the monthly variance between projected and actual fuel cost for the review
14 period. This Exhibit shows the cumulative average projected fuel cost level for the
15 period was only 0.79% below the actual resulting cost level.

16 **Q. DID ORS REVIEW ADDITIONAL INFORMATION IN DETERMINING THE**
17 **REASONABLENESS OF THE COMPANY'S FORECAST FOR THE**
18 **PROJECTED PERIOD?**

19 **A.** Yes. ORS reviewed the forecasted maintenance schedules for the Company's major
20 generating units as well as the Company's fuel price forecast for nuclear, coal, and
21 natural gas. The Company continues to utilize the PROSYM® computer model to project
22 fuel costs. PROSYM® is an accepted computer model utilized by utility companies
23 throughout the country for fuel cost projections. ORS also reviewed the Company's load

1 forecasting and dispatch procedures. Based on our review, ORS finds SCE&G's forecast
2 to be reasonable and appropriate.

3 **Q. DID ORS REVIEW THE COMPANY'S PROPOSAL TO COMPLY WITH THE**
4 **CHANGES IN THE RECOVERY OF CERTAIN VARIABLE**
5 **ENVIRONMENTAL COSTS AS REQUIRED BY S.C. CODE ANN. SECTION 58-**
6 **27-865(A)(1) (SUPP. 2007)?**

7 **A.** Yes. ORS reviewed the Company's proposal to calculate the variable environmental
8 component of costs based on firm peak demand for the Residential, Small General
9 Service, Medium General Service, Large General Service/Industrial, and Lighting
10 customer classes. The allocation of variable environmental costs, both incurred and
11 projected, based on firm peak demand distributes the costs to each customer class as
12 required by statute.

13 **Q. DOES ORS HAVE ANY AMENDMENTS TO THE TARIFF AS PRESENTED BY**
14 **THE COMPANY?**

15 **A.** Yes. Exhibit MSH-9 incorporates two amendments to the tariff sheet presented by
16 SCE&G. The first shows the equation of the total fuel rate at the top of page 1 of Exhibit
17 MSH-9. The second amendment more appropriately defines the projected variable
18 environmental costs at the top of page 2 of Exhibit MSH-9.

19 **Q. WHAT OTHER INFORMATION HAS ORS REVIEWED IN MAKING ITS**
20 **DETERMINATIONS IN THIS PROCEEDING?**

21 **A.** Exhibit MSH-10 shows ending period balances of fuel costs beginning April 1993. The
22 Company has experienced both under-recovery and over-recovery balances throughout

1 the approximate fifteen year period. As of January 2008, the Company was experiencing
2 a cumulative under-recovery of (\$28,848,155).

3 **Q. WHAT OTHER SOURCES OF INFORMATION DOES ORS USE IN**
4 **DETERMINING THE REASONABLENESS OF A UTILITY'S REQUEST FOR A**
5 **FUEL COST COMPONENT?**

6 **A.** ORS routinely 1) reviews private and public industry publications as well as those
7 available on the Energy Information Administration's ("EIA") website; 2) conducts
8 meetings with Company personnel; 3) attends industry conferences; and 4) reviews
9 information as filed monthly by electric generating utilities on Form 423 with the Federal
10 Energy Regulatory Commission. An example of EIA data reviewed is included on
11 Exhibits MSH-11 and MSH-12. Exhibit MSH-11 provides spot coal price data for a
12 three year period and includes the most recent upward trend of the average weekly coal
13 commodity spot prices for Central Appalachia beginning late in 2007. SCE&G generally
14 obtains its coal from the Central Appalachia region. Exhibit MSH-12 provides uranium
15 price data for the previous twelve year period and shows a steady increase in the price of
16 uranium since 2001.

17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18 **A.** Yes, it does.

**SOUTH CAROLINA
OFFICE OF REGULATORY STAFF**

**SOUTH CAROLINA ELECTRIC & GAS COMPANY
ANNUAL REVIEW OF BASE RATES FOR FUEL COST
ACTUAL REVIEW PERIOD: FEBRUARY 2007 – JANUARY 2008**

DOCKET NO. 2008-2-E

MICHAEL L. SEAMAN-HUYNH TESTIMONY

EXHIBIT INDEX

EXHIBIT NO.

EXHIBIT TITLE

MSH-1	Power Plant Performance Data Report – Availability Factors
MSH-2	Power Plant Performance Data Report – Capacity Factors
MSH-3	Fossil Unit Outage Report (100 Hrs. or Greater Duration)
MSH-4	Nuclear Unit Outage Report
MSH-5	Generation Mix Report
MSH-6	Generation Statistics for Major Plants
MSH-7	Retail Comparison of Estimated to Actual Energy Sales
MSH-8	Retail Comparison of Estimated to Actual Fuel Cost
MSH-9	ORS Recommended Amended Tariff Sheet
MSH-10	Fifteen Year History of Cumulative Recovery Account Report
MSH-11	EIA Average Weekly Coal Commodity Spot Prices
MSH-12	EIA Weighted-Average Price of Uranium Purchased for Nuclear Power Reactors

All Exhibits Prepared by the SC Office of Regulatory Staff

**Office of Regulatory Staff
Power Plant Performance Data Report
Availability Factors (Percentage) for
South Carolina Electric & Gas Company**

HISTORICAL DATA						REVIEW PERIOD (ACTUAL) DATA												Average Review Pd.
PLANT	UNIT	NET MW RATING	YEAR 2005	YEAR 2006	YEAR 2007	FEB 2007	MAR 2007	APR 2007	MAY 2007	JUN 2007	JUL 2007	AUG 2007	SEP 2007	OCT 2007	NOV 2007	DEC 2007	JAN 2008	
CANADYS	1	105	94.11	84.02	57.03	0.0	0.0	32.7	78.7	95.1	85.4	0.0	53.9	100.0	100.0	100.0	94.2	61.7
CANADYS	2	116	84.29	87.75	87.24	93.3	36.8	100.0	95.0	99.9	93.3	95.7	92.9	76.1	70.9	100.0	32.5	82.2
CANADYS	3	185	51.05	87.63	87.27	100.0	91.2	97.0	51.7	89.1	100.0	94.7	93.7	66.7	81.3	94.8	88.5	87.4
COPE		420	83.58	94.61	92.19	81.3	52.7	100.0	92.6	99.2	100.0	100.0	100.0	100.0	91.6	93.8	95.7	92.2
McMEEKIN	1	125	90.95	88.16	94.22	100.0	100.0	86.7	86.3	100.0	100.0	94.9	100.0	72.7	94.5	95.6	100.0	94.2
McMEEKIN	2	125	92.53	88.17	66.63	7.1	0.0	2.8	46.9	100.0	95.6	100.0	93.1	71.6	100.0	82.5	100.0	66.6
URQUHART	3	94	84.10	93.43	94.44	100.0	100.0	69.7	93.5	100.0	100.0	96.6	93.4	82.9	100.0	97.3	100.0	94.4
WATEREE	1	350	92.70	90.54	79.14	100.0	51.4	0.0	36.0	96.2	95.3	95.6	92.5	92.0	100.0	100.0	90.4	79.1
WATEREE	2	350	91.65	67.80	87.36	81.4	94.2	90.4	98.5	96.0	94.4	99.6	91.4	58.7	100.0	100.0	100.0	92.1
WILLIAMS		615	94.37	88.34	79.10	6.6	100.0	89.2	84.5	100.0	100.0	100.0	95.2	82.0	100.0	91.8	96.9	87.2
FOSSIL TOTALS		2485	85.93	87.04	82.46	67.0	62.6	66.8	76.4	97.6	96.4	87.7	90.6	80.3	93.8	95.6	89.8	83.7
JASPER CC	1	165	93.25	83.57	84.33	100.0	84.1	30.0	100.0	93.3	93.6	96.0	100.0	87.1	27.7	100.0	100.0	84.3
JASPER CC	2	165	86.79	85.05	84.28	100.0	100.0	30.0	100.0	100.0	93.6	98.1	100.0	78.5	30.0	91.1	100.0	85.1
JASPER CC	3	165	95.16	84.85	86.40	100.0	100.0	30.0	100.0	98.3	93.6	97.8	100.0	87.1	30.0	100.0	100.0	86.4
JASPER	ST	385	94.69	70.58	86.12	99.6	100.0	30.0	99.6	94.3	93.6	99.3	100.0	87.1	30.0	100.0	100.0	86.1
URQUHART CC	5	165	97.37	91.75	94.41	100.0	100.0	100.0	76.5	99.7	100.0	100.0	100.0	75.6	81.3	99.9	99.5	94.4
URQUHART CC	1	66	97.37	92.15	93.19	100.0	100.0	100.0	76.6	100.0	100.0	95.0	99.4	75.1	72.3	100.0	99.5	93.2
URQUHART CC	6	173	96.18	95.31	80.68	100.0	98.9	97.6	75.0	100.0	100.0	99.9	100.0	61.3	0.0	35.6	93.5	80.1
URQUHART CC	2	68	97.08	95.18	80.55	100.0	98.9	97.6	75.0	100.0	100.0	99.8	100.0	61.0	0.0	34.4	93.3	80.0
CC TOTALS ¹		1352	94.74	87.30	86.25	99.9	97.7	64.4	87.8	98.2	96.8	98.2	99.9	76.6	33.9	82.6	98.2	86.2
V.C. SUMMER		966	88.58	88.87	99.49	93.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.4	97.5

Note 1: CC designates Combined-Cycle units

Office of Regulatory Staff
Power Plant Performance Data Report
Capacity Factors (Percentage) for
South Carolina Electric & Gas Company

HISTORICAL DATA							REVIEW PERIOD (ACTUAL) DATA												
PLANT	UNIT	NET MW RATING	LIFE TIME	YEAR 2005	YEAR 2006	YEAR 2007	FEB 2007	MAR 2007	APR 2007	MAY 2007	JUN 2007	JUL 2007	AUG 2007	SEP 2007	OCT 2007	NOV 2007	DEC 2007	JAN 2008	Average Review Pd
CANADYS	1	105	80.7	81.9	69.0	43.8	0.0	0.0	15.3	53.6	75.3	71.8	0.0	30.4	76.4	82.3	87.3	66.5	46.6
CANADYS	2	116	79.7	69.3	69.9	67.6	80.2	26.8	86.4	76.2	77.2	74.0	79.8	70.9	58.0	28.7	77.3	24.8	63.3
CANADYS	3	185	51.1	48.4	69.7	77.8	98.8	80.8	93.2	48.2	79.4	95.5	96.0	87.0	60.9	47.1	68.4	75.0	77.5
COPE		420	78.5	82.8	93.1	90.0	80.7	50.2	100.4	90.9	97.2	99.1	97.1	95.0	98.0	88.7	89.0	95.4	90.1
McMEEKIN	1	125	68.9	80.4	76.7	81.9	92.7	91.2	76.0	71.7	85.9	87.2	88.5	90.6	63.4	75.4	69.3	90.4	81.9
McMEEKIN	2	125	69.1	83.3	73.0	59.0	6.1	0.0	0.5	30.8	87.2	83.3	97.2	87.2	62.0	91.4	75.4	92.8	59.5
URQUHART	3	94	74.7	72.9	80.6	86.5	99.6	91.9	64.5	84.9	87.5	89.9	94.3	84.4	74.9	90.3	82.4	87.7	86.0
WATEREE	1	350	69.7	83.8	79.2	68.2	92.7	44.3	0.0	28.3	77.3	76.5	90.6	82.9	75.1	85.5	83.0	74.8	67.6
WATEREE	2	350	69.8	85.5	60.7	72.9	64.0	76.2	78.5	84.3	81.8	79.7	91.1	80.2	40.2	89.5	85.1	87.8	78.2
WILLIAMS		615	67.7	89.1	83.4	70.9	2.7	92.3	81.2	72.1	91.6	90.0	96.4	86.8	73.5	87.8	76.3	90.3	78.4
FOSSIL TOTALS		2485	70.9	81.8	78.7	73.8	56.2	63.6	66.0	66.8	86.2	86.6	89.6	83.7	70.6	81.5	80.4	83.5	76.2
JASPER CC	1	165	n/a	21.6	25.1	29.7	78.9	11.7	2.8	26.4	25.3	32.1	54.8	26.4	24.6	0.0	15.7	52.0	29.2
JASPER CC	2	165	n/a	24.9	27.0	35.3	62.5	12.7	3.1	42.0	43.8	57.7	75.2	47.9	26.5	2.4	10.6	44.1	35.7
JASPER CC	3	165	n/a	26.2	25.2	30.1	69.0	6.9	5.3	29.5	35.4	34.7	53.7	32.8	24.3	2.9	14.4	49.5	29.9
JASPER	ST	385	n/a	19.7	19.5	24.5	50.7	7.6	2.3	24.6	27.4	33.8	54.4	28.6	19.9	1.0	9.3	33.5	24.4
URQUHART CC	5	165	n/a	10.4	17.9	22.9	47.0	1.3	30.7	6.2	23.0	26.5	59.5	22.1	18.0	2.4	3.8	24.4	22.1
URQUHART CC	1	66	n/a	10.8	20.0	24.8	51.2	1.6	34.2	6.6	25.3	28.2	63.9	23.7	19.8	1.9	4.2	26.9	23.9
URQUHART CC	6	173	n/a	6.8	15.4	20.8	47.3	0.7	25.0	8.1	23.0	25.6	52.7	20.0	16.9	0.0	1.2	21.5	20.2
URQUHART CC	2	68	n/a	8.1	17.4	22.7	52.0	0.8	28.7	9.0	25.5	27.6	56.3	21.0	18.7	0.0	1.2	23.7	22.0
CC TOTALS ¹		1352	n/a	n/a	21.0	26.4	57.0	6.3	12.1	21.5	28.8	34.1	57.9	28.7	21.1	1.3	8.5	35.5	26.1
V.C. SUMMER		966	82.0 ²	87.8	88.3	100.1	91.9	101.6	100.8	101.0	99.9	100.6	100.2	100.4	100.9	101.2	101.4	77.5	98.1

Note 1: CC designates Combined-Cycle units

Note 2: The lifetime nuclear unit capacity factor for V.C. Summer is through January 2008

**Office of Regulatory Staff
Fossil Unit Outage Report
(100 Hrs or Greater Duration) for
South Carolina Electric & Gas Company**

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Canadys #1	1/12/2007 ¹	04/16/07	2243.89	Planned	Unit was taken off line due to a scheduled turbine overhaul
Canadys #1	05/04/07	05/11/07	158.68	Maintenance	Unit was taken off line for a reheat pipe leak repair
Canadys #1	07/27/07	09/07/07	1009.70	Forced	Unit was forced off line due to main generator step-up transformer failure
Canadys #2	03/02/07	03/20/07	427.42	Planned	Unit was taken off line for maintenance on the boiler feed pump
Canadys #2	10/26/07	11/09/07	331.58	Planned	Unit was taken off line to replace a burner in "B" furnace
Canadys #2	01/11/08	1/31/2008 ²	502.25+	Planned	Unit was taken off line due to a turbine generator overhaul
Canadys #3	04/30/07	05/15/07	381.23	Planned	Unit was taken off line due to a variety of maintenance work
Canadys #3	10/12/07	10/22/07	247.43	Planned	Unit was taken off line due to maintenance work on the Coal Mill Exhaust
Cope	02/23/07	03/15/07	473.65	Planned	Unit was taken off line due to a planned spring outage
McMeekin #1	05/16/07	05/20/07	101.98	Forced	Unit was forced off line due to fire in junction box in HP turbine
McMeekin #1	10/12/07	10/21/07	202.90	Planned	Unit was taken off line due to a planned fall outage
McMeekin #2	02/02/07	04/24/07	1933.52	Planned	Unit was taken off line due to a planned spring outage
McMeekin #2	04/25/07	05/02/07	166.25	Forced	Unit was forced off line due to a bearing repair
McMeekin #2	05/07/07	05/21/07	326.60	Forced	Unit was forced off line due to a tube leak and bearing repair
McMeekin #2	09/28/07	10/07/07	202.27	Planned	Unit was taken off line due to a chemical clean
McMeekin #2	12/25/07	12/31/07	130.20	Forced	Unit was forced off line due to a hydraulic oil line break
Wateree #1	03/16/07	05/20/07	1551.98	Planned	Unit was taken off line due to a planned spring outage
Wateree #1	09/29/07	10/03/07	103.99	Maintenance	Unit was taken off line due to changing a barrel in a boiler feed pump
Wateree #2	02/23/07	03/02/07	157.74	Planned	Unit was taken off line due to a planned spring outage
Wateree #2	10/13/07	10/25/07	297.48	Planned	Unit was taken off line due to a planned fall outage
Williams	12/21/2006 ³	02/19/07	1449.03	Forced	Unit was forced off line due to electrical problems between the main generator and the station transformer
Williams	02/20/07	02/28/07	176.67	Forced	Unit was forced off line due to a ground fault on the excitation equipment and a tube leak
Williams	05/17/07	05/21/07	110.33	Planned	Unit was taken off line due to a planned spring outage
Williams	10/06/07	10/11/07	134.13	Planned	Unit was taken off line due to a planned fall outage

Note 1: This outage began before the review period.

Note 2: As of the filing of this testimony, this unit is still offline.

Note 3: This outage began before the review period.

**Office of Regulatory Staff
Fossil Unit Outage Report
(100 Hrs or Greater Duration) for
South Carolina Electric & Gas Company**

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Jasper #1	03/06/07	03/11/07	118.00	Forced	Unit was forced off line due to generator hydrogen seal failure
Jasper #1	04/09/07	04/30/07	504.00	Planned	Unit was taken off line due to a planned spring outage
Jasper #1	10/28/07	11/18/07	521.00	Planned	Unit was taken off line due to a planned fall outage
Jasper #2	04/09/07	04/30/07	504.00	Planned	Unit was taken off line due to a planned spring outage
Jasper #2	10/26/07	11/18/07	541.00	Planned	Unit was taken off line due to a planned fall outage
Jasper #3	04/09/07	04/30/07	504.00	Planned	Unit was taken off line due to a planned spring outage
Jasper #3	10/28/07	11/16/07	478.00	Planned	Unit was taken off line due to a planned fall outage
Jasper ST	04/09/07	04/30/07	504.00	Planned	Unit was taken off line due to a planned spring outage
Jasper ST	10/28/07	11/17/07	483.32	Planned	Unit was taken off line due to a planned fall outage
Urquhart #1	05/07/07	05/14/07	174.00	Planned	Unit was taken off line due to a bore scope inspection
Urquhart #1	10/12/07	10/19/07	172.67	Maintenance	Unit was taken off line due to a variety of maintenance work
Urquhart #1	11/07/07	11/15/07	191.22	Forced	Unit was forced off line due to a failure in an intercept valve
Urquhart #2	04/30/07	05/08/07	203.00	Planned	Unit was taken off line due to a bore scope inspection
Urquhart #2	10/20/07	12/21/07	1496.92	Planned	Unit was taken off line due to a planned fall outage
Urquhart #3	04/14/07	04/23/07	214.52	Planned	Unit was taken off line due to a variety of maintenance work
Urquhart #3	09/29/07	10/06/07	172.83	Maintenance	Unit was taken off line due to a variety of maintenance work
Urquhart #5	05/07/07	05/14/07	174.00	Planned	Unit was taken off line due to a bore scope inspection
Urquhart #5	10/12/07	10/19/07	172.67	Maintenance	Unit was taken off line due to a variety of maintenance work
Urquhart #5	11/10/07	11/15/07	125.50	Maintenance	Unit was taken off line due to work on an intercept valve
Urquhart #6	04/30/07	05/08/07	203.00	Planned	Unit was taken off line due to perform UGT battery inspection
Urquhart #6	10/20/07	12/20/07	1488.50	Planned	Unit was taken off line due to a planned fall outage

Office of Regulatory Staff
V.C. Summer Nuclear Unit Outage Report for
South Carolina Electric & Gas Company

NO.	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
1	02/05/07	02/06/07	40.88	Forced	Unit was forced off line due to a steam leak
2	01/24/08	01/31/08	175.90	Forced	Unit was forced off line due to the failure of a Feedwater Flow Control Valve Positioner

EXHIBIT MSH-4

Office of Regulatory Staff
Generation Mix Report for
South Carolina Electric & Gas Company

(February 1, 2007 - January 31, 2008)

MONTH	PERCENTAGE					
	FOSSIL	NUCLEAR	COMBINED CYCLE	COMBUSTION TURBINE	HYDRO	PURCHASED POWER
2007						
February	49	20	25	0	3	3
March	64	25	3	0	6	2
April	63	25	6	0	4	2
May	59	22	10	0	5	4
June	64	19	11	0	4	2
July	63	18	13	0	4	2
August	57	16	20	2	3	2
September	64	19	12	0	3	2
October	63	22	10	0	3	2
November	73	23	0	0	3	1
December	70	22	4	0	3	1
2008						
January	66	15	14	0	3	2
Avg =	63	20	11	0	4	2

**Office of Regulatory Staff
Generation Statistics for Major Plants for
South Carolina Electric & Gas Company**

(February 1, 2007 - January 31, 2008)

PLANT	TYPE FUEL	AVERAGE FUEL COST (CENTS/KWH ¹)	GENERATION (MWH)
V.C. Summer ²	Nuclear	0.43	5,536,455
Cope	Coal	2.34	3,316,685
McMeekin	Coal	2.37	1,550,802
Wateree	Coal	2.40	4,467,394
Williams	Coal	2.54	4,252,503
Urquhart	Coal	2.55	704,090
Canadys	Coal	2.82	2,270,994
Jasper CC	Gas	6.52	2,171,545
Urquhart CC	Gas	6.97	885,467

Note 1: The average fuel costs for coal-fired plants include oil and/or gas cost for start-up and flame stabilization.

Note 2: Generation Statistics for V.C. Summer represents SCE&G's 2/3 ownership.

Office of Regulatory Staff
SC Retail Comparison of Estimated to Actual Energy Sales
for South Carolina Electric & Gas Company

	2007											2008	
	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>TOTAL</u>
[1] ESTIMATED SALES [MWH]	1,783,000	1,669,000	1,582,000	1,683,000	2,003,000	2,202,000	2,238,000	2,073,000	1,785,000	1,588,000	1,750,000	1,917,000	22,273,000
[2] ACTUAL SALES [MWH]	1,845,009	1,695,657	1,544,802	1,732,806	1,917,538	2,128,561	2,300,429	2,125,488	1,863,011	1,617,769	1,659,161	1,826,063	22,256,294
[3] AMOUNT DIFFERENCE [1]-[2]	-62,009	-26,657	37,198	-49,806	85,462	73,439	-62,429	-52,488	-78,011	-29,769	90,839	90,937	16,706
[4] PERCENT DIFFERENCE [3]/[2]	-3.36%	-1.57%	2.41%	-2.87%	4.46%	3.45%	-2.71%	-2.47%	-4.19%	-1.84%	5.47%	4.98%	0.08%

Office of Regulatory Staff
SC Retail Comparison of Estimated to Actual Fuel Cost (Cents/kWh)
for South Carolina Electric & Gas Company

		<u>2007</u> <u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>2008</u> <u>JAN</u>	<u>AVERAGE</u>
[1]	ORIGINAL PROJECTION	2.4981	2.4335	2.0212	2.6019	2.8119	2.9763	2.8582	2.2594	2.2260	2.5441	2.5456	2.4699	2.5205
[2]	ACTUAL EXPERIENCE	3.0225	2.0811	2.473	2.4472	2.6345	2.5934	3.0276	2.2446	2.3567	2.1457	2.2722	3.1879	2.5405
[3]	AMOUNT IN BASE	2.5160	2.5160	2.5160	2.6300	2.6300	2.6300	2.6300	2.6300	2.6300	2.6300	2.6300	2.6300	2.6015
[4]	VARIANCE FROM ACTUAL [1-2]/[2]	-17.35%	16.93%	-18.27%	6.32%	6.73%	14.76%	-5.60%	0.66%	-5.55%	18.57%	12.03%	-22.52%	-0.79%

SOUTH CAROLINA ELECTRIC & GAS COMPANY

ELECTRICITY

ADJUSTMENT FOR FUEL AND VARIABLE ENVIRONMENTAL COSTS

RETAIL RATES

(Page 1 of 2)

APPLICABILITY

This adjustment is applicable to and is part of the Utility's South Carolina retail electric rate schedules.

The fuel and variable environmental costs, to be recovered in an amount rounded to the nearest one-thousandth of a cent per kilowatt-hour, will be determined by the following formulas:

$$F_C = \frac{E_F}{S} + \frac{G_F}{S_1}$$

$$F_{EC} = \frac{E_{EC} + G_{EC}}{S_2}$$

$$\text{Total Fuel Rate} = F_C + F_{EC}$$

Where:

F_C = Fuel cost per kilowatt-hour included in base rate, rounded to the nearest one-thousandth of a cent.

E_F = Total projected system fuel costs:

- (A) Fuel consumed in the Utility's own plants and the Utility's share of fuel consumed in jointly owned or leased plants. The cost of fossil fuel shall include no items other than those listed in Account 151 of the Commission's Uniform System of Accounts for Public Utilities and Licensees. The cost of nuclear fuel shall be that as shown in Account 518 excluding rental payments on leased nuclear fuel and except that, if Account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.

PLUS

- (B) Fuel costs related to purchased power such as those incurred in unit power and limited term power purchases where the fossil fuel costs associated with energy purchased are identifiable and are identified in the billing statement. Also, the cost of "firm generation capacity purchases," which are defined as purchases made to cure a capacity deficiency or to maintain adequate reserve levels. Costs of "firm generation capacity purchases" includes the total delivered costs of firm generation capacity purchased and excludes generation capacity reservation charges, generation capacity option charges and any other capacity charges.

PLUS

- (C) Fuel costs related to purchased power (including transmission charges), such as short term, economy and other such purchases, where the energy is purchased on an economic dispatch basis, including the total delivered cost of economy purchases of electric power defined as purchases made to displace higher cost generation at a cost which is less than the purchasing Utility's avoided variable costs for the generation of an equivalent quantity of electric power.

Energy receipts that do not involve money payments such as diversity energy and payback of storage energy are not defined as purchased or interchange power relative to this fuel calculation.

MINUS

- (D) The cost of fuel recovered through intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Energy deliveries that do not involve billing transactions such as diversity energy and payback of storage energy are not defined as sales relative to this fuel calculation.

S = Projected system kilowatt-hour sales excluding any intersystem sales.

G_F = Cumulative difference between jurisdictional fuel revenues billed and fuel expenses at the end of the month preceding the projected period utilized in E_F and S .

S_1 = Projected jurisdictional kilowatt-hour sales, for the period covered by the fuel costs included in E_F .

F_{EC} = Customer class variable environmental costs per kilowatt-hour included in base rates, rounded to the nearest one-thousandth of a cent.

SOUTH CAROLINA ELECTRIC & GAS COMPANY

ELECTRICITY

ADJUSTMENT FOR FUEL AND VARIABLE ENVIRONMENTAL COSTS

RETAIL RATES

(Page 2 of 2)

E_{EC} = The projected variable environmental costs including: a) the cost of ammonia, lime, limestone, urea, dibasic acid, and catalysts consumed in reducing or treating emissions, plus b) the cost of emission allowances, as used, including allowances for SO₂, NO_x, mercury and particulates minus net proceeds of sales of emission allowances, and c) as approved by the Commission, all other variable environmental costs incurred in relation to the consumption of fuel and air emissions caused thereby, including but not limited to environmental reagents, other environmental allowances, and emission related taxes. Any environmental related costs recovered through intersystem sales would be subtracted from the totals produced by subparts a), b), and c).

These environmental costs will be allocated to retail customer classes based upon the customer class firm peak demand allocation from the prior year.

G_{EC} = Cumulative difference between jurisdictional customer class environmental fuel revenues billed and jurisdictional customer class environmental costs at the end of the month preceding the projected period utilized in E_{EC} and S₂.

S₂ = The projected jurisdictional customer class kilowatt-hour sales.

The appropriate revenue-related tax factor is to be included in these calculations.

FUEL RATES BY CLASS

The total fuel costs in cents per kilowatt-hour by customer class as determined by the Public Service Commission of South Carolina in Order No. ____-____ are as follows for the period May, 2008 through April, 2009:

<u>Customer Class</u>	<u>F_C Rate</u>	+	<u>F_{EC} Rate</u>	=	<u>Total Fuel Rate</u>
Residential	2.641		0.101		2.742
Small General Service	2.641		0.087		2.728
Medium General Service	2.641		0.075		2.716
Large General Service	2.641		0.044		2.685
Lighting	2.641		0.000		2.641

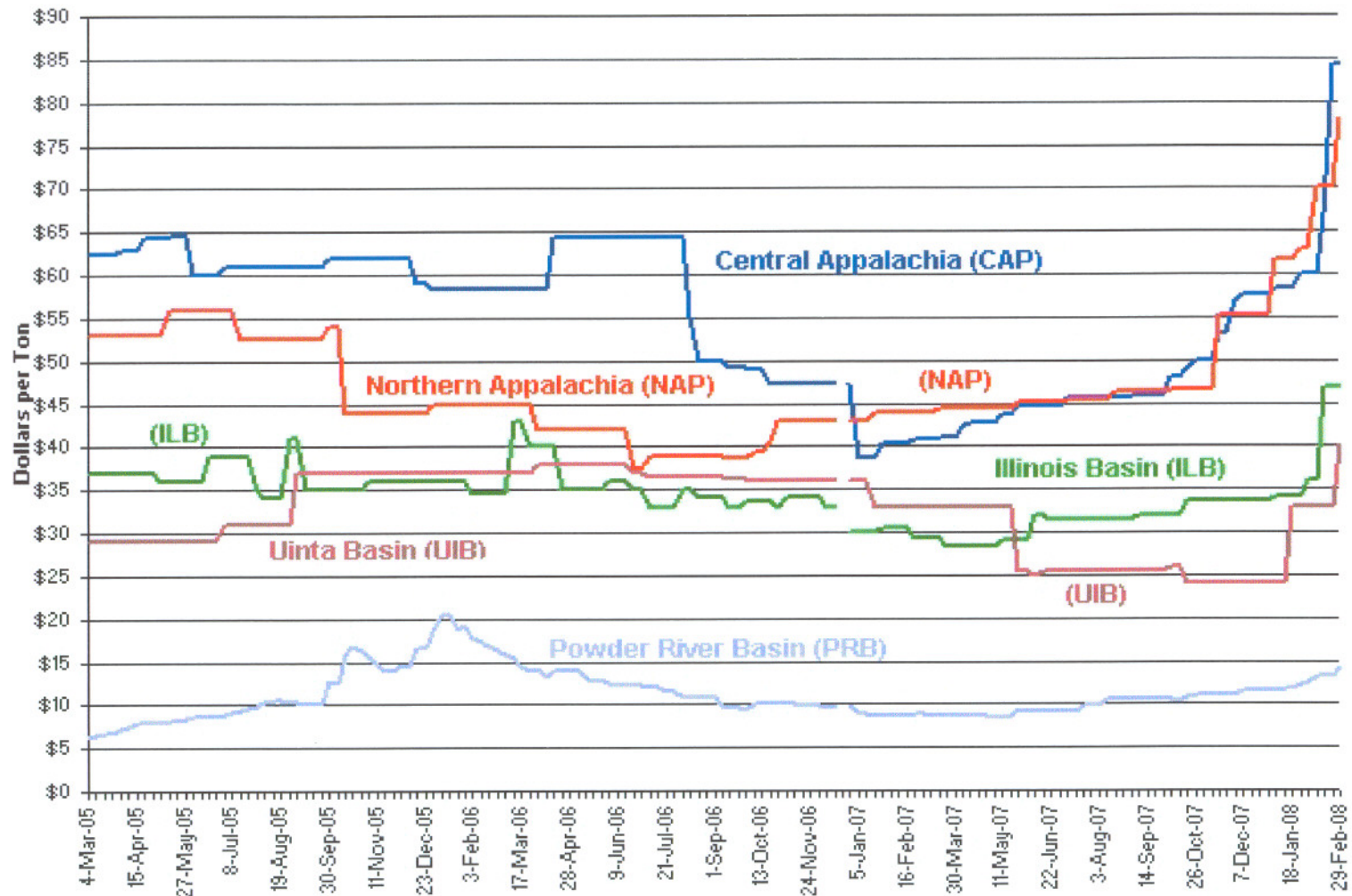
**South Carolina
Office of Regulatory Staff
Fifteen Year History of Cumulative Recovery
Account Report for
South Carolina Electric & Gas Company**

EXHIBIT MSH-10

<u>PERIOD ENDING</u>	<u>OVER (UNDER)\$</u>
April-93	16,006,551
October-93	10,069,457
April-94	2,646,301
October-94	(265,302)
April-95	6,622,597
October-95	4,202,766
February-97	4,914,169
February-98	596,797
February-99	(1,303,094)
February-00	(124,599)
February-01	(60,454,498)
February-02	(16,421,821)
February-03	(17,429,464)
February-04	(20,532,126)
January-05	(23,979,198)
January-06	(54,743,186)
January-07	(52,562,505)
January-08	(28,848,155)

EIA Average Weekly Coal Commodity Spot Prices

Business Week Ended February 29, 2008



Key to Coal Commodities by Region

Central Appalachia: Big Sandy/Kanawha 12,500 Btu, 1.2 lb SO₂/mmBtu
Northern Appalachia: Pittsburgh Seam 13,000 Btu, <3.0 lb SO₂/mmBtu
Illinois Basin: 11,800 Btu, 5.0 lb SO₂/mmBtu

Powder River Basin: 8,600 Btu, 0.8 lb SO₂/mmBtu
Uinta Basin in Colo.: 11,700 Btu, 0.8 lb SO₂/mmBtu

EIA Weighted-Average Price of U.S. and Foreign-Origin Uranium Purchased by Owners and Operators of U.S. Civilian Nuclear Power Reactors, 1994-2006 Deliveries

